Newington-Dover EIS
NH 16 / US 4 / Spaulding Turnpike
NHS-027-1(37), 11238

WELCOME

Advisory Task Force (ATF) Meeting

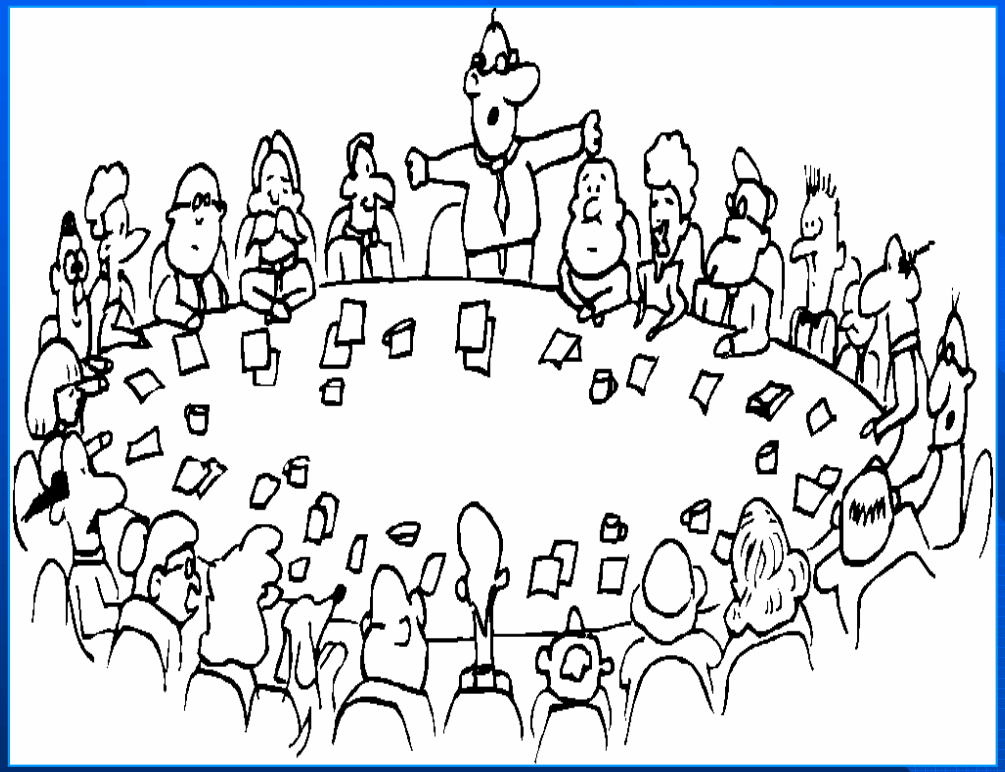
Dover City Hall

August 24, 2005

Meeting Agenda

- Welcome
- ATF Role and Responsibilities
- Indirect and Cumulative Impacts Analysis and Evaluation
- Review of Dover Alternatives
- Potential Wetland Mitigation
- Schedule of Upcoming Meetings
  - Next ATF Meeting
    - » September 28, 2005, 6:30 PM, Newington Town Hall
  - Public Informational Meetings
    - » Week of October 10, 2005 at Dover City Hall and Newington Town Hall
- Adjournment

ATF Role and Responsibilities



- Purpose
- Protocol
- Adoption of July 6, 2005 Meeting Minutes
- Comments/ Questions

Preliminary Socio-Economic Impacts

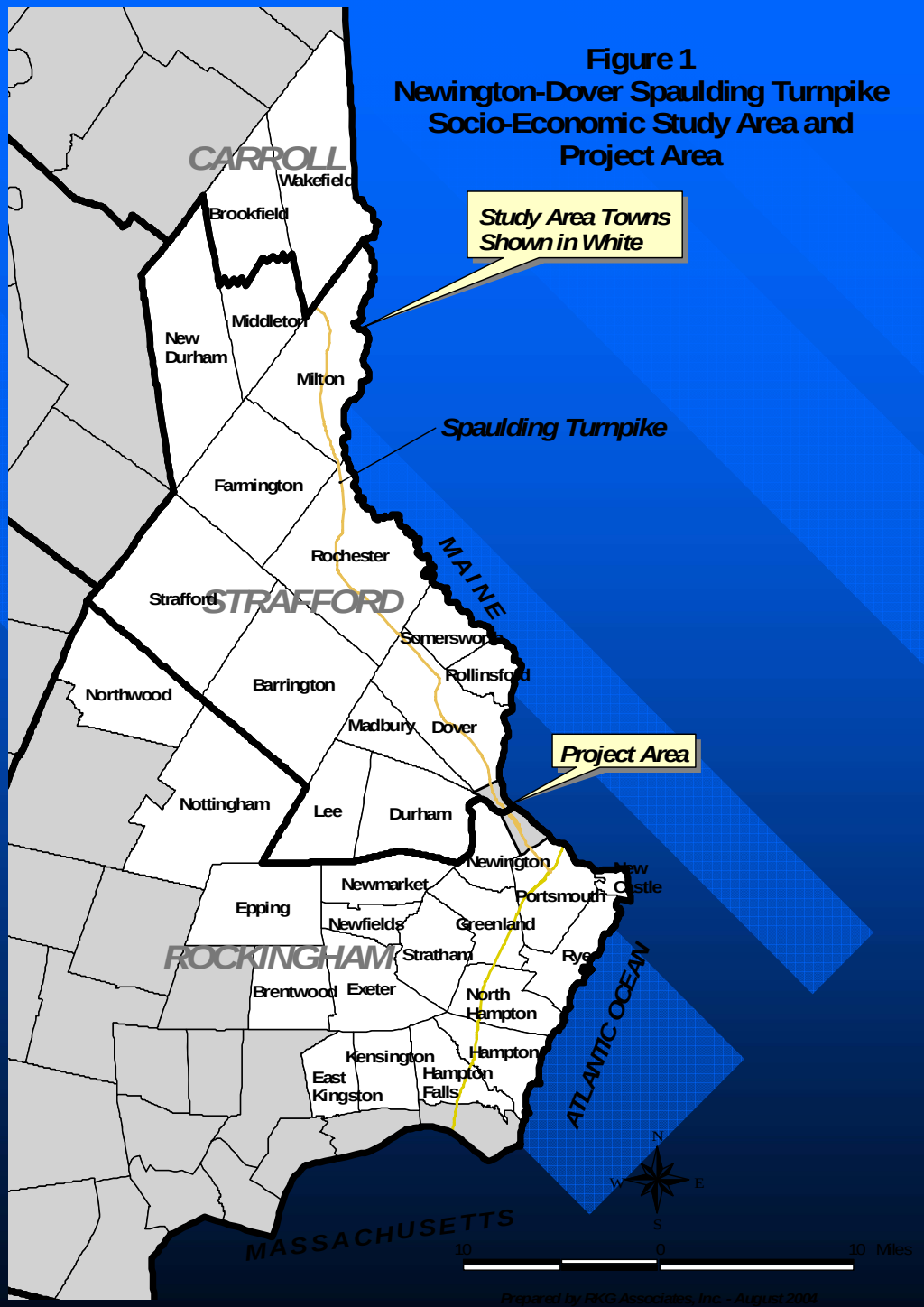
Key Impacts Evaluated

- Direct Impacts – Caused by the action and occurs at the same time and place.
- Indirect Impacts – Caused by the action and are later in time or further removed in distance, but are still reasonably foreseeable.
- Cumulative Impacts – Results from incremental impact of the action when added to other past, present and reasonably foreseeable future actions regardless of what agency or persons undertakes such action.

Methodology

- Identification of study area that includes 33 communities in Rockingham, Strafford and Carol Counties.
- Evaluation of social and economic trends for study area communities.
- Used an economic and policy model-Regional Economic Model, Inc. or REMI to forecast key economic changes over time.
- Projected additional changes related to the two bridge widening alternatives (six or eight lanes) with the REMI TranSight model. This model provides links between transportation improvements and economic output.

Figure 1
Newington-Dover Spaulding Turnpike Socio-Economic Study Area and Project Area



Social and Economic Trends

- Substantial housing growth over the past 20 to 30 years. Rate of growth between 1990 and 2000 declined from previous two decades.
- Population growth in Strafford County exceeded that of the Rockingham County portion of the study area.
- OEP projects a growth rate of about 28% between 2000 and 2025 for the study area.
- Average number of residential building permits was about 1,400 between 1985 and 2002. About 21% involved multifamily dwelling units.
- Average housing prices were lower in Strafford County than Rockingham County between 1992 and 2002. However, the average yearly rate of appreciation was higher in Strafford (8.2% vs. 7.5%)

Social and Economic Trends (Con't)

- Total employment in the study area was about 107,000 in 2001, an increase of about 27% from 1993.
- Approximately 74% of workers that live in the study area are employed in the study area.
- In Strafford County the number of residents that work outside the County increased by 20%. About 65% of the workers that commute work in Rockingham County. Only 6% of Rockingham County commuters work in Strafford County.

Direct Impacts

- Only two or three properties will need to be acquired depending on the combination of project alternatives selected.
- The various project alternatives result in a reduction of property tax revenues of less than one percent in both Dover and Newington.

Indirect Impacts – Project Area

- Three alternatives (10A, 12A & 13) could improve access to property at the Pease International Tradeport and a 16 acre parcel in Newington.
- Minimal impacts on existing businesses except for some possible impacts on a gas station/convenience store. However, this impact may be minimized due to maintaining a southbound exit to Nimble Hill Road (Alternatives 10A and 12A), or maintaining a southbound exit and entrance to Nimble Hill Road (Alternative 13).
- Several of the alternatives are expected to have a positive impact on connectivity between neighborhoods in Newington and Dover.

Indirect Impacts on Study Area

KEY SOCIAL & ECONOMIC PROJECTIONS					
	2005	2025	Total Change	Percent Change	Average Change/ Year
STRAFFORD COUNTY					
Population	117,637	139,825	22,188	18.9%	0.9%
Employment	58,758	69,433	10,675	18.2%	0.9%
Gross Regional Product (Billion)	$3.3	$6.7	$3.4	103%	5.2%
Disposable Income (Billion)	$2.9	$4.7	$1.8	62%	3.1%
	2005	2025	Total Change	Percent Change	Avg. Change/ Year
ROCKINGHAM COUNTY					
Population	297,749	368,402	70,653	23.7%	1.2%
Employment	188,198	228,345	40,147	21.3%	1.1%
Gross Regional Product (Billion)	$13.8	$28.9	$15.1	109.0%	5.4%
Disposable Income (Billion)	$10.3	$17.3	$7.0	67.9%	3.4%
Source: REMI and RKG Associates, Inc.					

Indirect Impacts on Study Area

REMI MODEL INPUTS					
		Estimated Change in Peak Travel Time 2005 -2025 (Minutes)			
		AM		PM	
Bridge Travel Lanes	Estimated Construction Cost (million)	South Bound	North Bound	South Bound	North Bound
Four Lanes (No-Build)		7.5	0.7	3.5	10.7
Six Lanes	$127.5	0.2	0.4	0.0	-3.1
Eight Lanes	$138.3	-2.6	0.3	-0.9	-6.2
Source: VHB, Resource Systems Group					

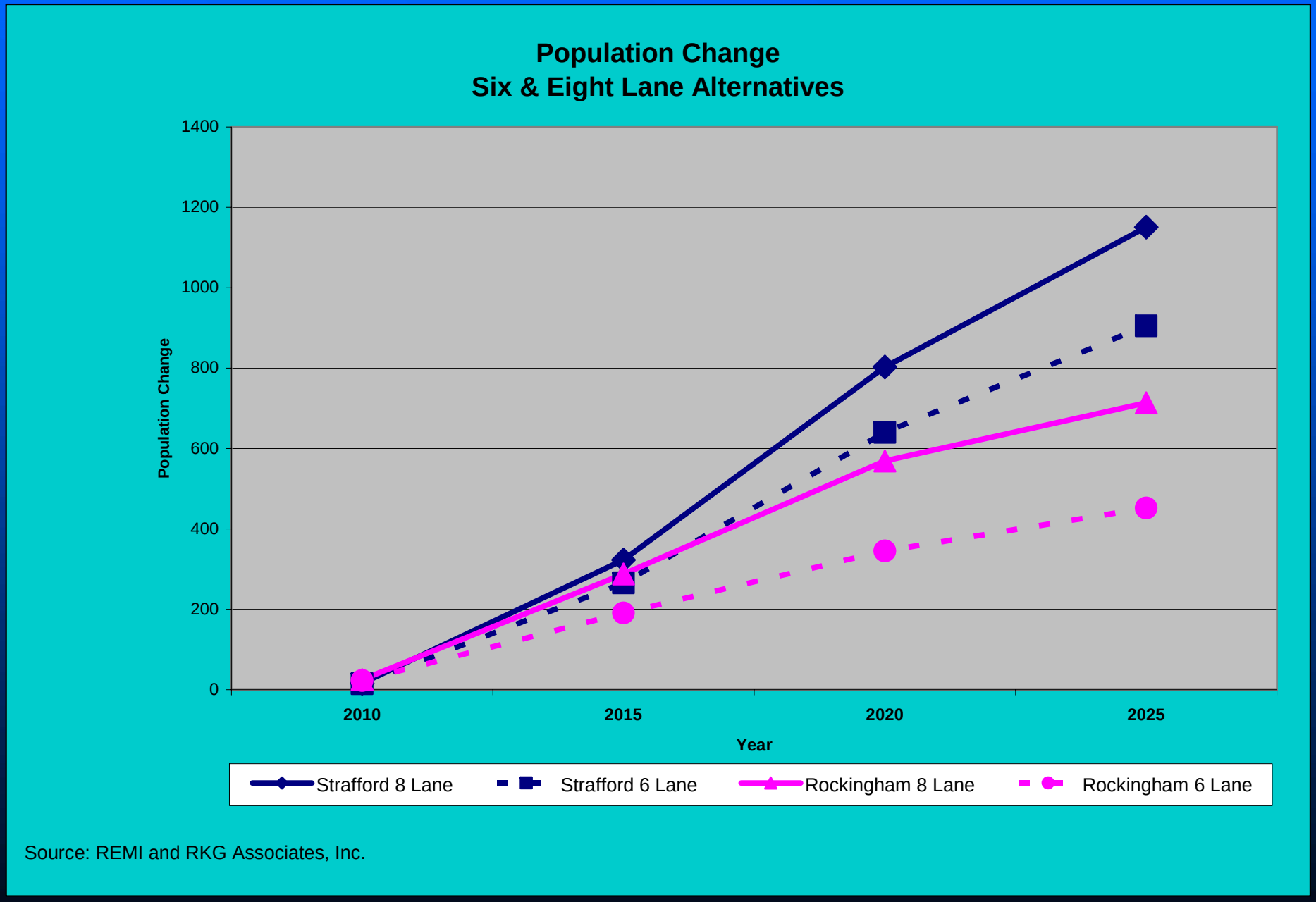
Indirect Impacts

CHANGE FROM NO CONSTRUCTION				
6 LANE				
	2010	2015	2020	2025
STRAFFORD				
Population	15	266	640	905
Total Employment	134	538	639	737
ROCKINGHAM				
Population	23	191	345	452
Total Employment	189	613	610	594
STAFFORD & ROCKINGHAM				
Population	37	457	985	1,357
Total Employment	323	1,152	1,249	1,331
Source: REMI and RKG Associates, Inc.				

Indirect Impacts

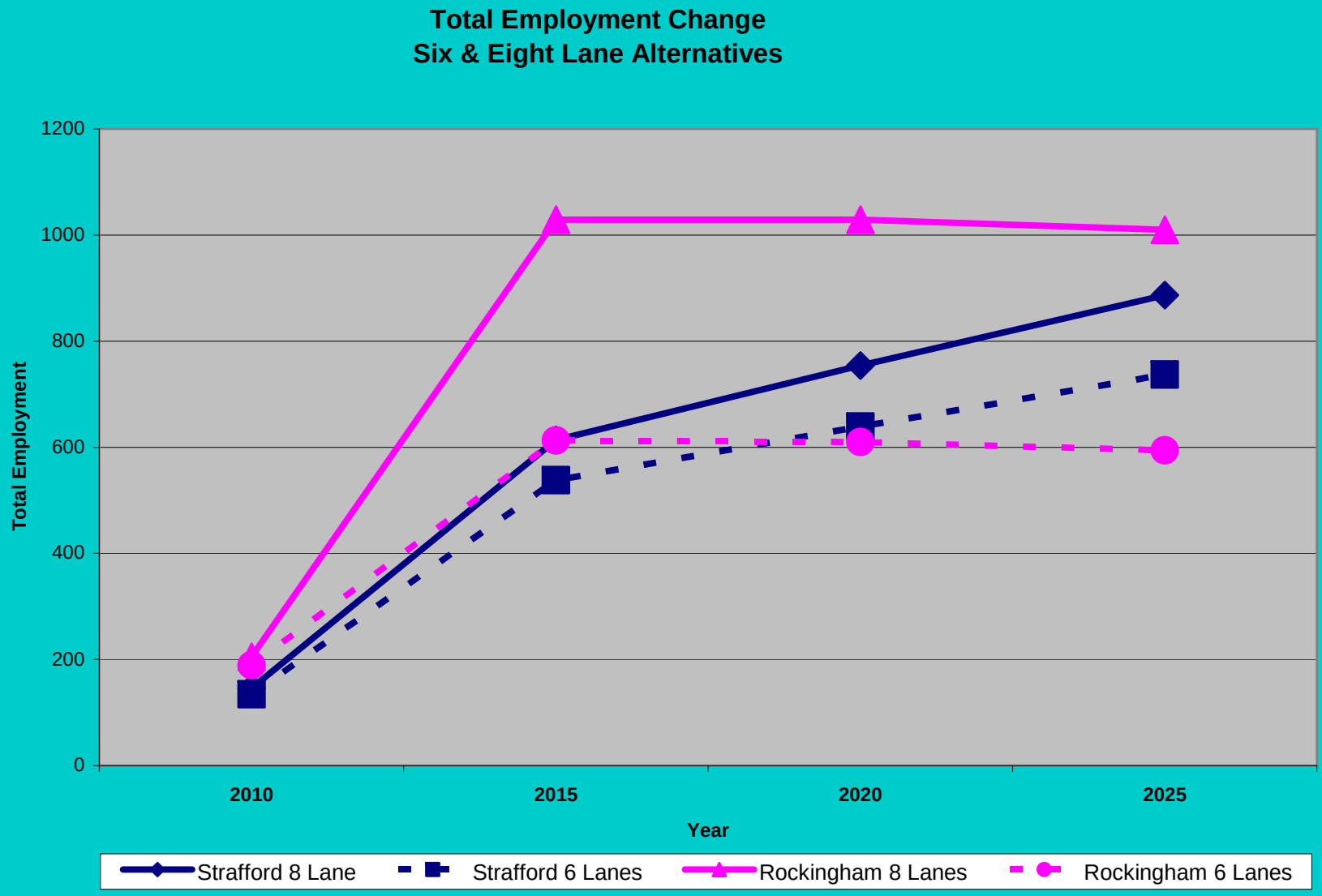
CHANGE FROM NO CONSTRUCTION				
8 LANE				
	2010	2015	2020	2025
STRAFFORD				
Population	16	323	803	1,151
Total Employment	146	614	754	887
ROCKINGHAM				
Population	25	288	569	714
Total Employment	205	1,029	1,029	1,010
STAFFORD & ROCKINGHAM				
Population	41	614	1,372	1,865
Total Employment	351	1,644	1,782	1,897
Source: REMI and RKG Associates, Inc.				

Indirect Impacts



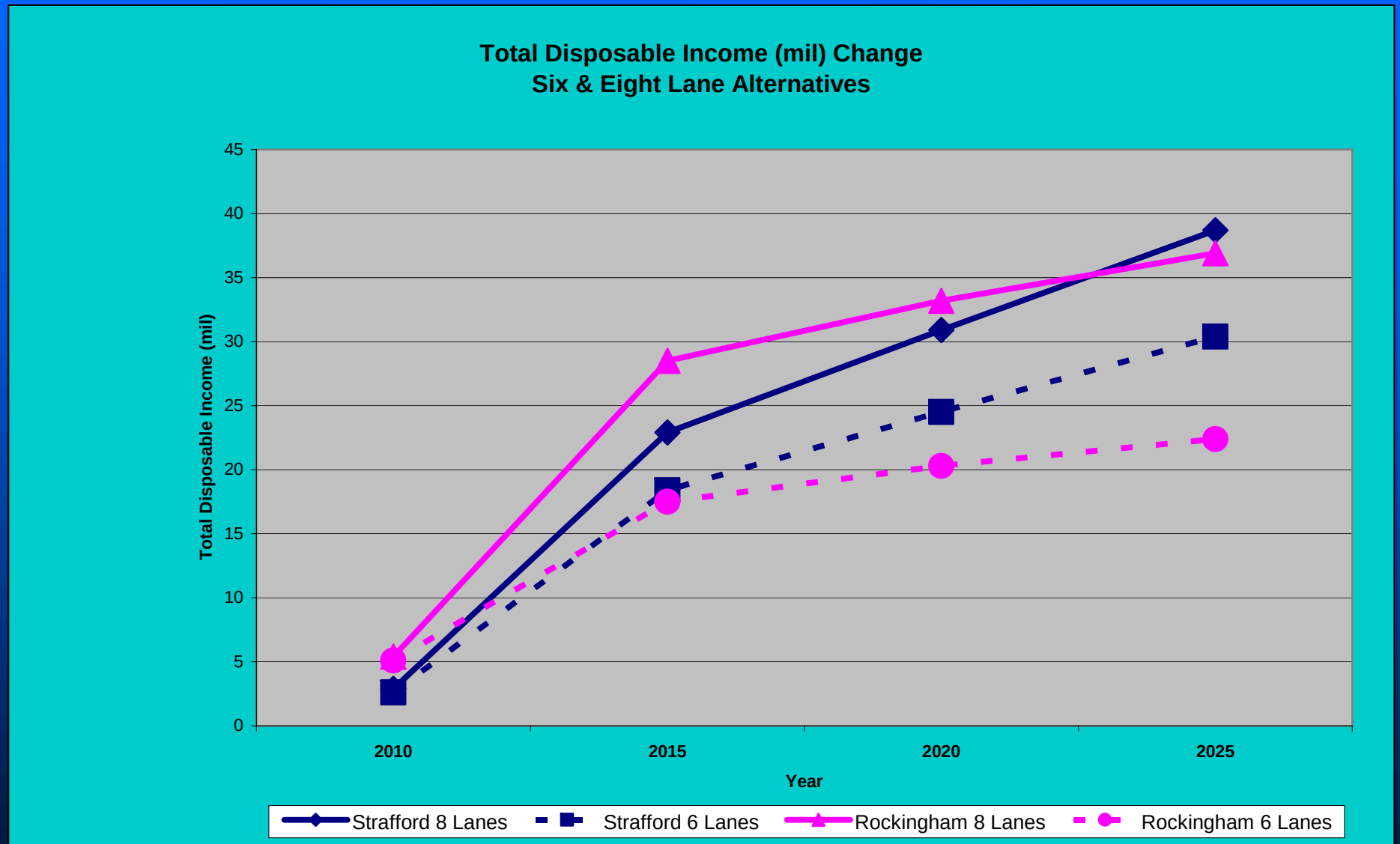
Source: REMI and RKG Associates, Inc.

Indirect Impacts



Source: REMI and RKG Associates, Inc.

Indirect Impacts



Source: REMI and RKG Associates, Inc.

Summary of Key Indirect Impacts

- If bridge alternatives are not constructed (no-build alternative) it is projected that by 2025
  - Population will increase by about 50,000 within the study area
  - Number of households will increase by approximately 21,000
- Six Lane Bridge Alternative - 2025
  - Population increase about 1,350 over no-build alternative
  - Increase in the number of households by 450
  - Increase employment of about 1,330
- Eight Lane Bridge Alternative - 2025
  - Population increase of about 1,860 over no-build alternative
  - Increase in the number of households of about 600
  - Increase in employment of about 1,900

Cumulative Impacts

- Future development of Pease International Tradeport. Possible construction of an additional 1.5 million square feet.
- Liberty Mutual Expansion in Dover. An additional 1,600 employees.
- Continued retail decentralization.
- New Hampshire Seacoast Wastewater Management Study.

Dover Alternative 2
LITTLE BAY
ROYALS COVE
BOSTON HARBOR RD
SPUR RD
4
BELLAMY RIVER
DOVER POINT RD
ADAPTATIONS
K9 KAOS
POMEROY COVE
DOVER POINT
SPAULDING TURNPIKE
16
TOLL PLAZA
HOMESTEAD LN
DOVER POINT RD
LEGEND
Conceptual Roadway Improvements
Pavement Removal
Newington Interim Improvements
Proposed Signal
Conceptual Path
Proposed Bridge
Building
Existing Pavement
Wetlands
Water
200 0 200 400
SCALE IN FEET

Dover Alternative 3
LITTLE BAY
4
ROYALS COVE
BOSTON HARBOR RD
SPUR RD
BELLAMY RIVER
DOVER POINT RD
ADAPTATIONS
WALL
DETENTION BASIN #639 SB
DETENTION BASIN #630 SB
DETENTION BASIN #656 SB
SWALE #647 SB
SWALE #213
SWALE #653 SB
SWALE #817 SB
SWALE #613 NB
K9 KAOS
POMEROY COVE
SWALE #647 NB
SWALE #656 NB
SWALE #634 NB
PATH
DOVER POINT
SPAULDING TURNPIKE
16
TOLL PLAZA
SWALE #671 SB
SWALE #238
HOMESTEAD LN
DOVER POINT RD
LEGEND
Conceptual Roadway Improvements
Pavement Removal
Newington Interim Improvements
Proposed Signal
Conceptual Path
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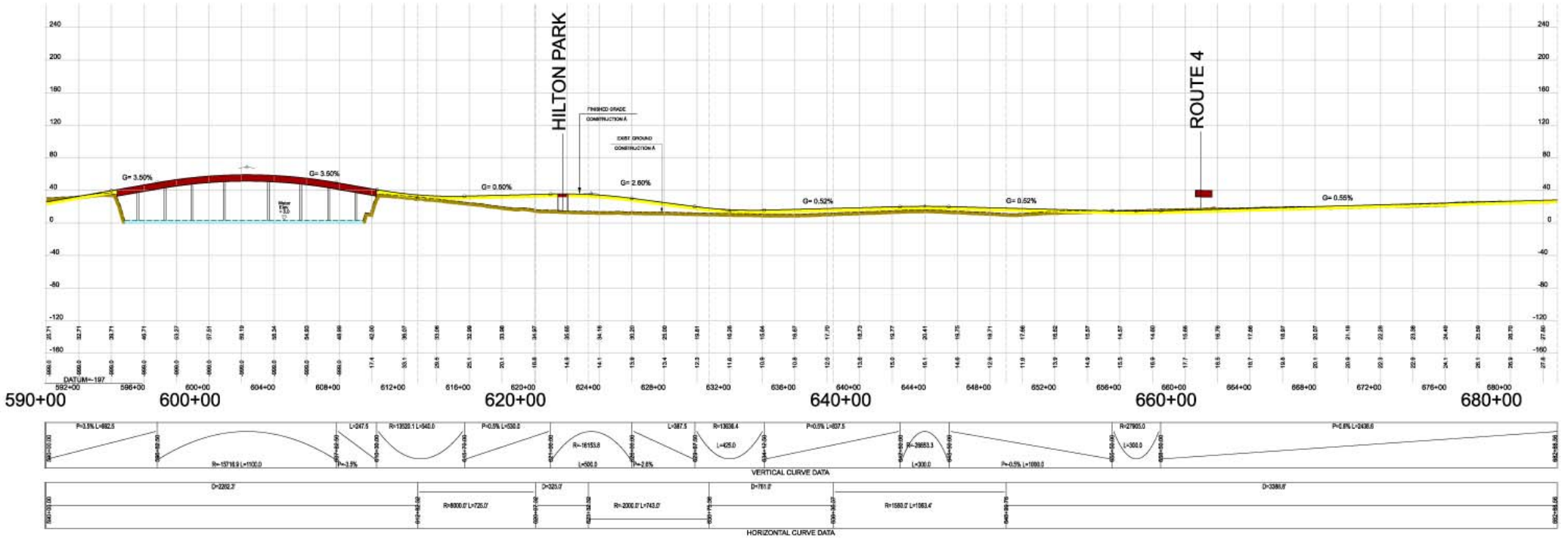
Water
200 0 200 400
SCALE IN FEET

NEWINGTON - DOVER

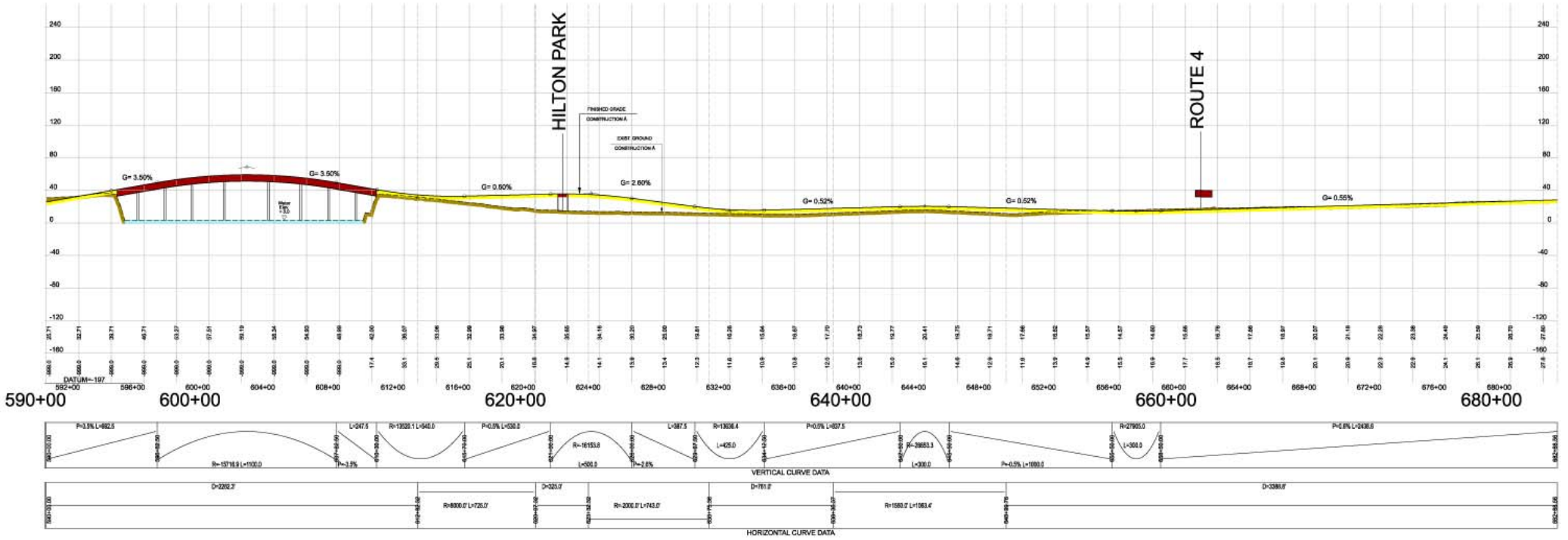
ALT 2 & 3 Mainline (Dover)

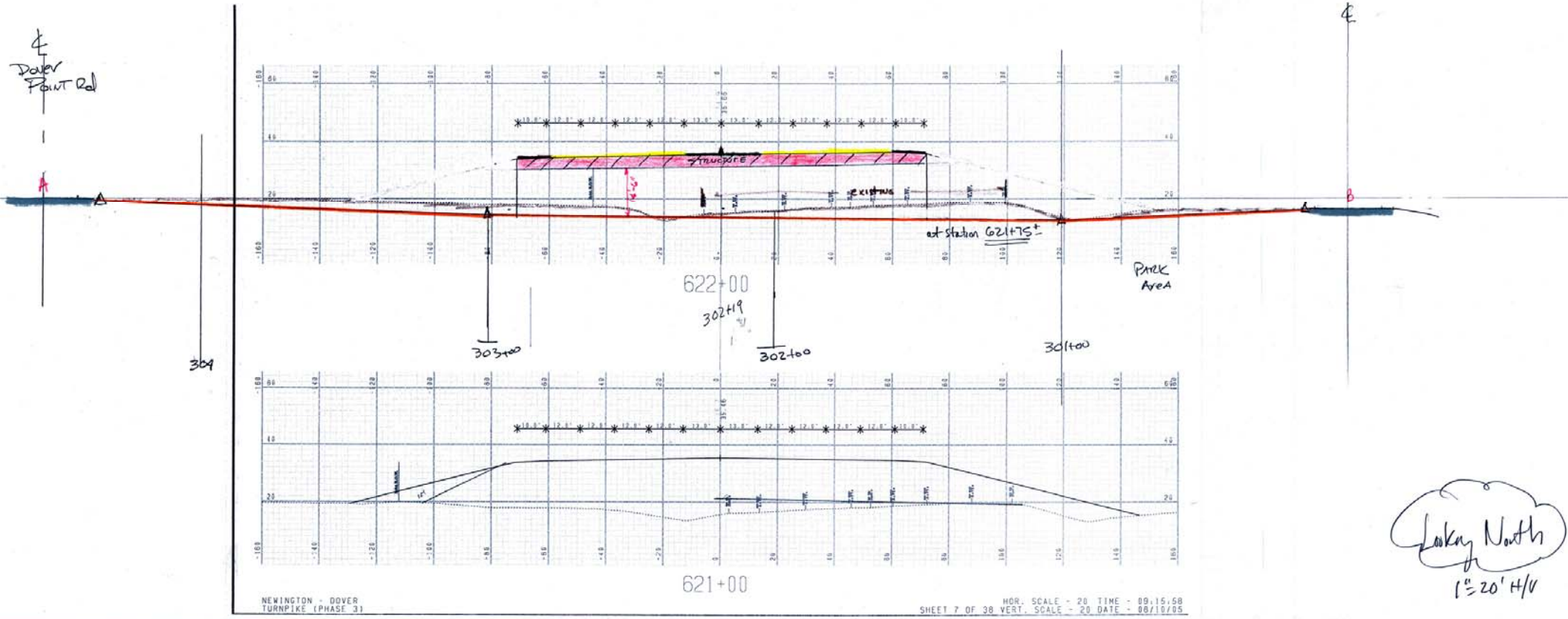


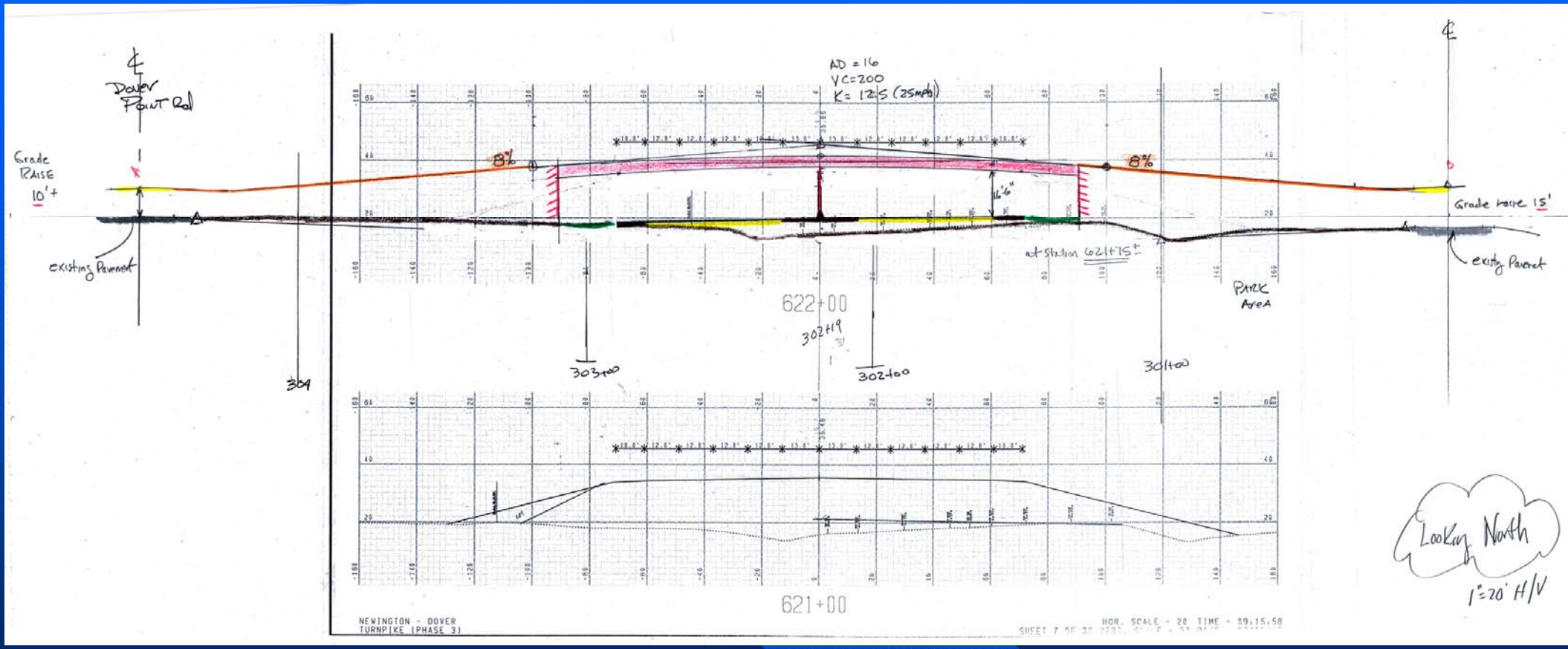
Hilton Park Connector Road (STA 621+75)

NEWINGTON - DOVER

ALT 2 & 3 Mainline (Dover)




℄
Dover Point Rd
A
B
℄
Structure
existing
at station 621+75±
622+00
302+19
303+00
302+00
301+00
304
621+00
Park Area
Looking North
1"=20' H/V
NEWINGTON - DOVER
TURNPIKE (PHASE 3)
HOR. SCALE - 20 TIME - 09:15:58
SHEET 7 OF 38 VERT. SCALE - 20 DATE - 08/10/05


Dover Point Rd
Grade Raise 10'+
existing Pavement
AD = 16
VC=200
K= 12.5 (25mph)
8%
8%
11'6"
at station 621+75±
Grade raise 15'
existy Pavert
PARK Area
622+00
621+00
303+00
302+00
301+00
309
Looking North
1"=20' H/V
NEWINGTON - DOVER
TURNPIKE (PHASE 3)

Summary of Potential Wetland Impacts and Wetland Mitigation

Anticipated Wetland Impacts - Dover

- Alternative 3 & Western Bridge Rehabilitation

  2.71 ac Palustrine Forested Wetlands (PFO)

  1.38 ac Palustrine Emergent Wetlands (PEM)

  0.21 ac Estuarine Intertidal (E2)

  4.30 ac Total Wetland Impact

Anticipated Wetland Impacts - Newington

- Alternative 13 & Western Bridge Rehabilitation

  6.88 ac Palustrine Forested Wetlands (PFO)

  2.86 ac Palustrine Emergent Wetlands (PEM)

  1.46 ac Palustrine Scrub-shrub (PSS)

  0.03 ac Palustrine Open-water (POW)

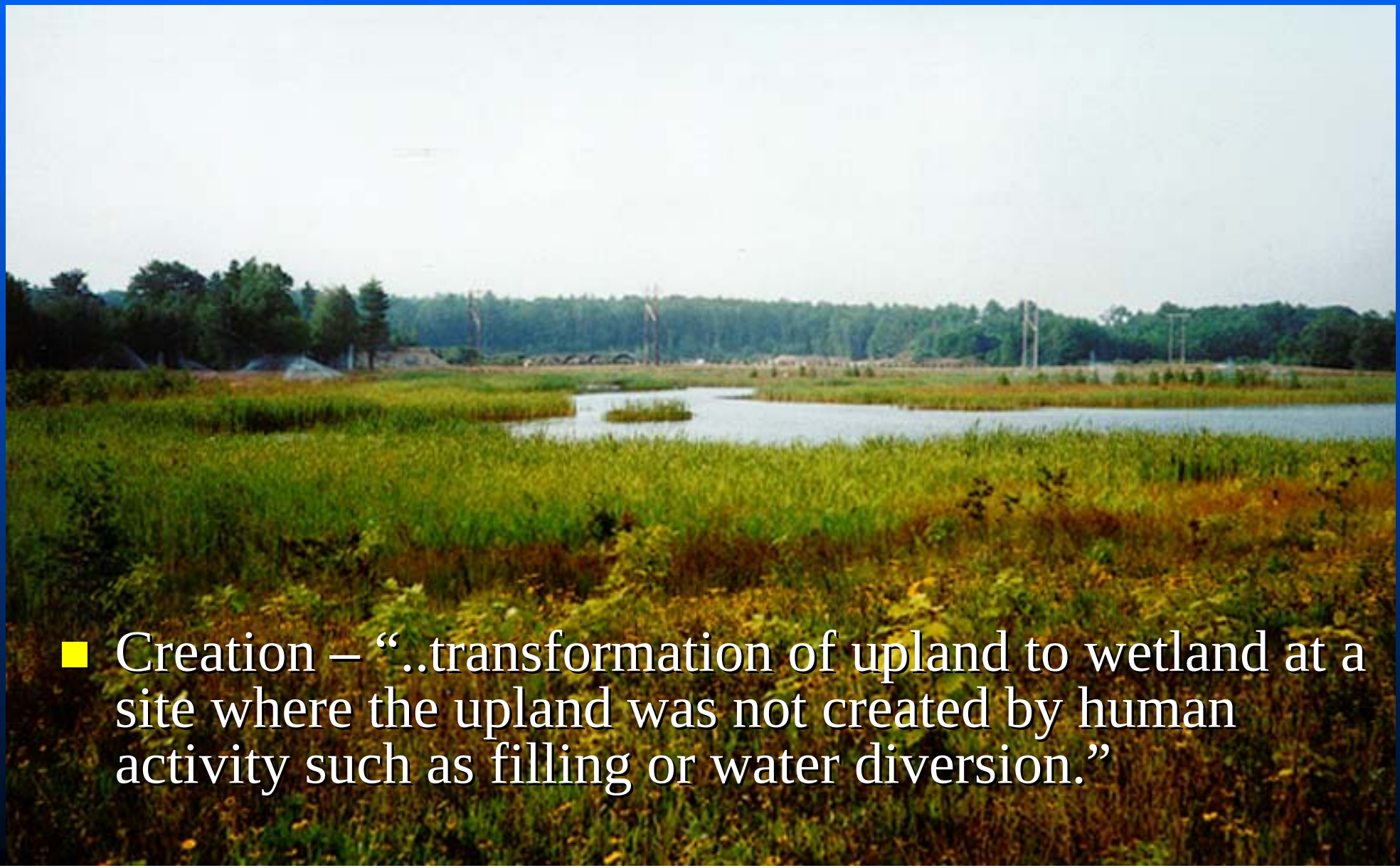
  <0.01 ac Estuarine Intertidal (E2)

  11.23 acres Total Wetland Impact

Regulatory Framework

- State - NHDES Rules – Wt 800
  - Wetland mitigation: Avoid impacts, minimize impacts, compensate for lost wetland functions and values
  - Mitigate within same watershed where possible
  - Required ratios for creation, restoration, preservation
- Federal – ACOE – CWA Section 404
  - Cooperative review by EPA, USFWS, NMFS
  - Ratios not specified in this case
  - Preference for restoration, then preservation (creation in certain circumstances)

Compensatory Wetland Mitigation Creation

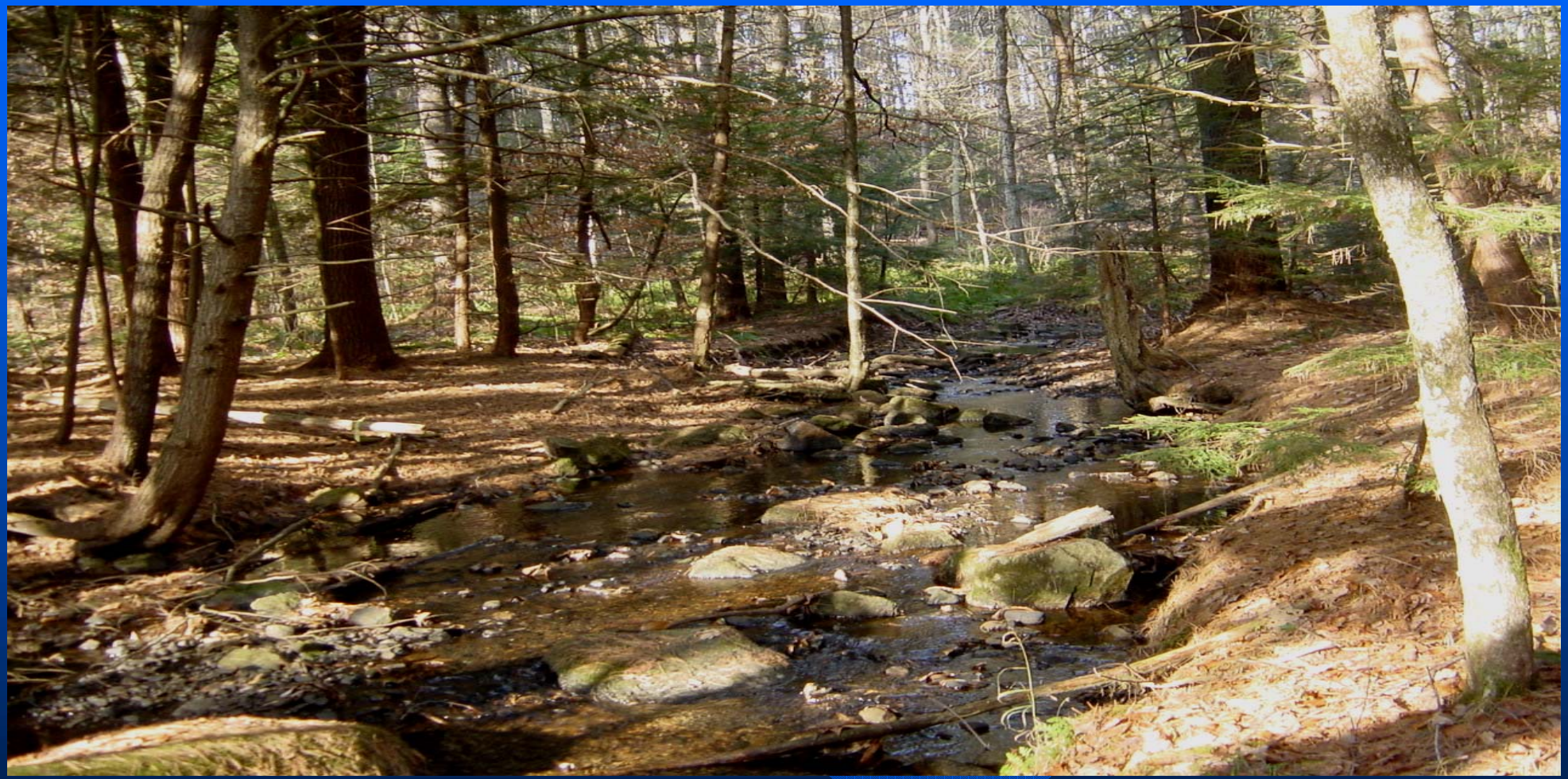


- Creation – "..transformation of upland to wetland at a site where the upland was not created by human activity such as filling or water diversion."

Compensatory Wetland Mitigation Restoration

- Restoration – "…re-establishment of a filled, dredged, or drained wetland to its historic condition, so as to restore lost functions to the greatest extent practicable, by removal of fill, restoration of hydrology to the area, or by such other means as are necessary."

Compensatory Wetland Mitigation Preservation



- Preservation – "…permanent protection of wetland and upland areas using legal and physical mechanisms so that the resource remains in a natural or undeveloped condition."

Identification of Mitigation Parcels – Methodology and Process

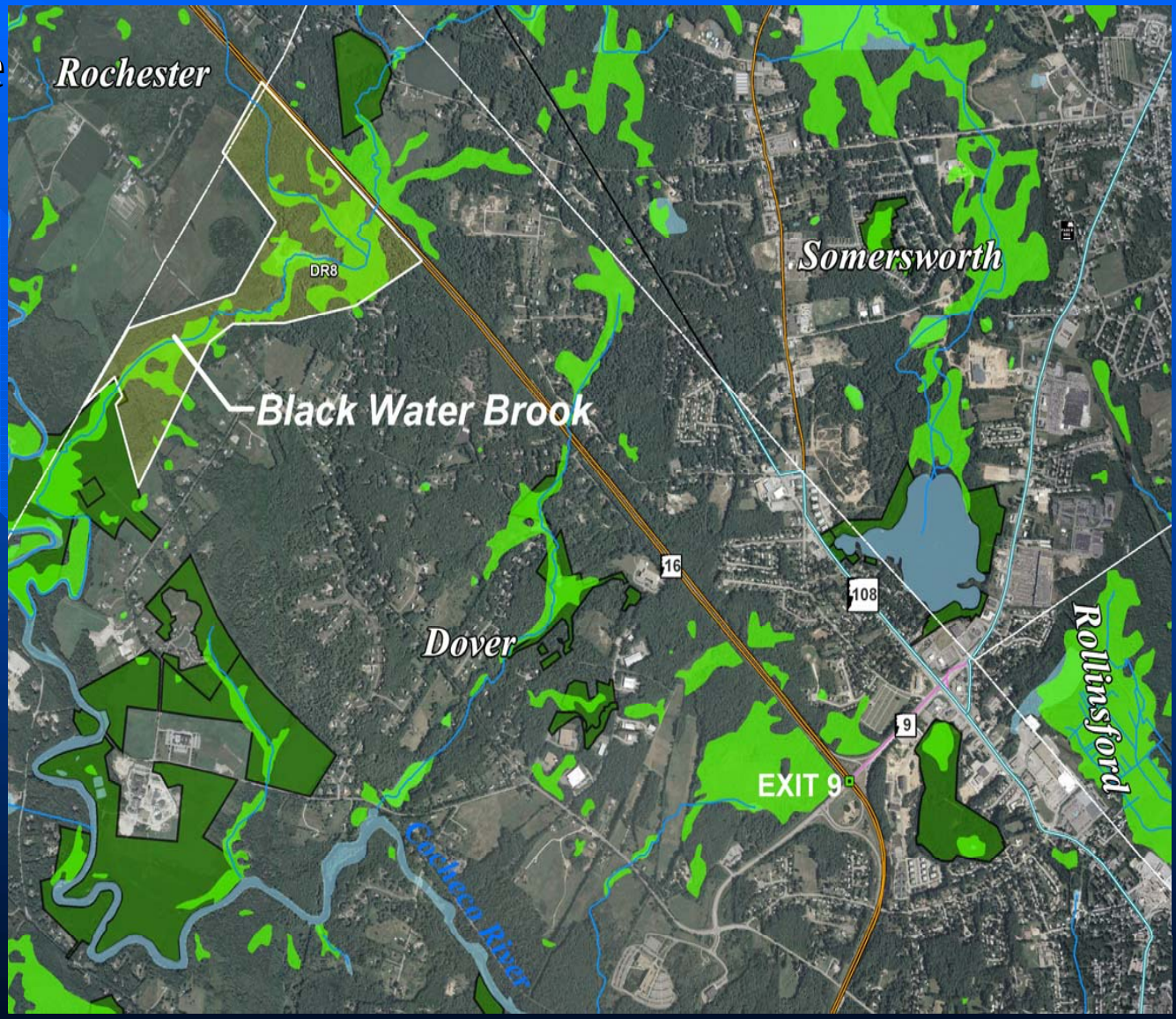
- Develop GIS database
  - Conservation lands
  - NWI inventory
- Review published materials
  - "Freshwater Wetland Mitigation Inventory for Nineteen Coastal Communities" (NHEP)
  - "Evaluation of Restorable Salt Marshes in New Hampshire" (NRCS)
  - "Development Plan Update" (Pease International Tradeport)
  - "Ecological Inventory of Cocheco River and Follet's Brook Watersheds" (TNC)
  - "Coarse Filter Analysis of Potentially Significant Wildlife Habitat" (NHF&G)
  - Historic Aerial Photographs and USGS Topographic Maps
- Ongoing consultations
  - Conservation Commissions
  - The Nature Conservancy
  - Regulatory Agencies
- Field review potential sites
  - Inventory/assess natural/cultural resources
  - Identify & document key functions & values
  - Note surrounding land use practices/connectivity

Possible Mitigation - Dover

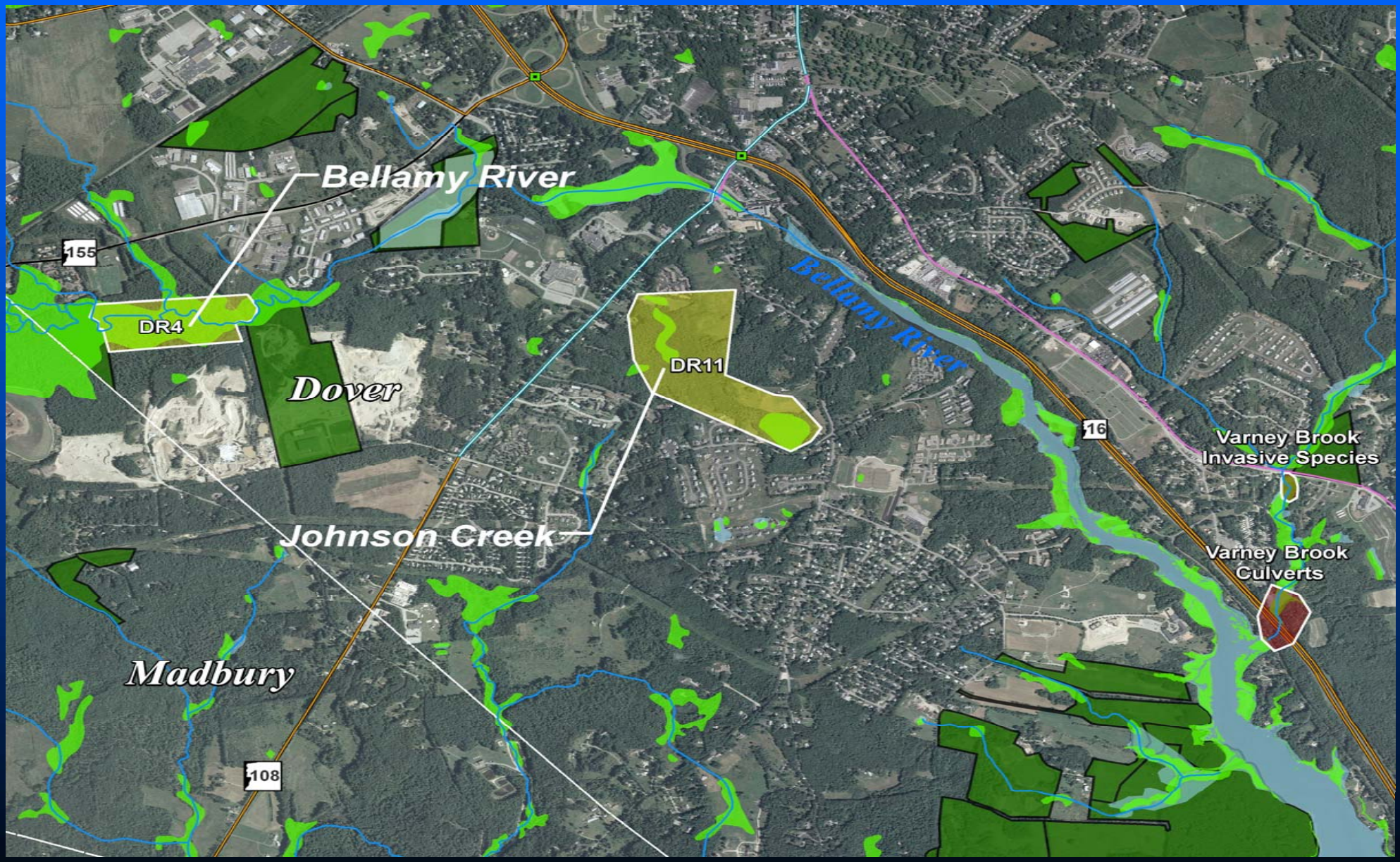
- 5 sites (3 preservation, 2 restoration)
  - Black Water Brook (DR-8)
  - Bellamy River (DR-4)
  - Johnson Creek (DR-11)
  - Varney Brook – Culvert Upgrades
  - Varney Brook – Invasive Species Removal

Black Water Brook (DR-8)

- Key preservation site identified by Dover and TNC
- Undeveloped, variety of wetland/upland habitat
- Linked to adjacent conserved lands
- Potentially 50 acres conserved by NHDOT



Bellamy River (DR-4)/ Johnson Creek (DR-11)/ Varney Brook

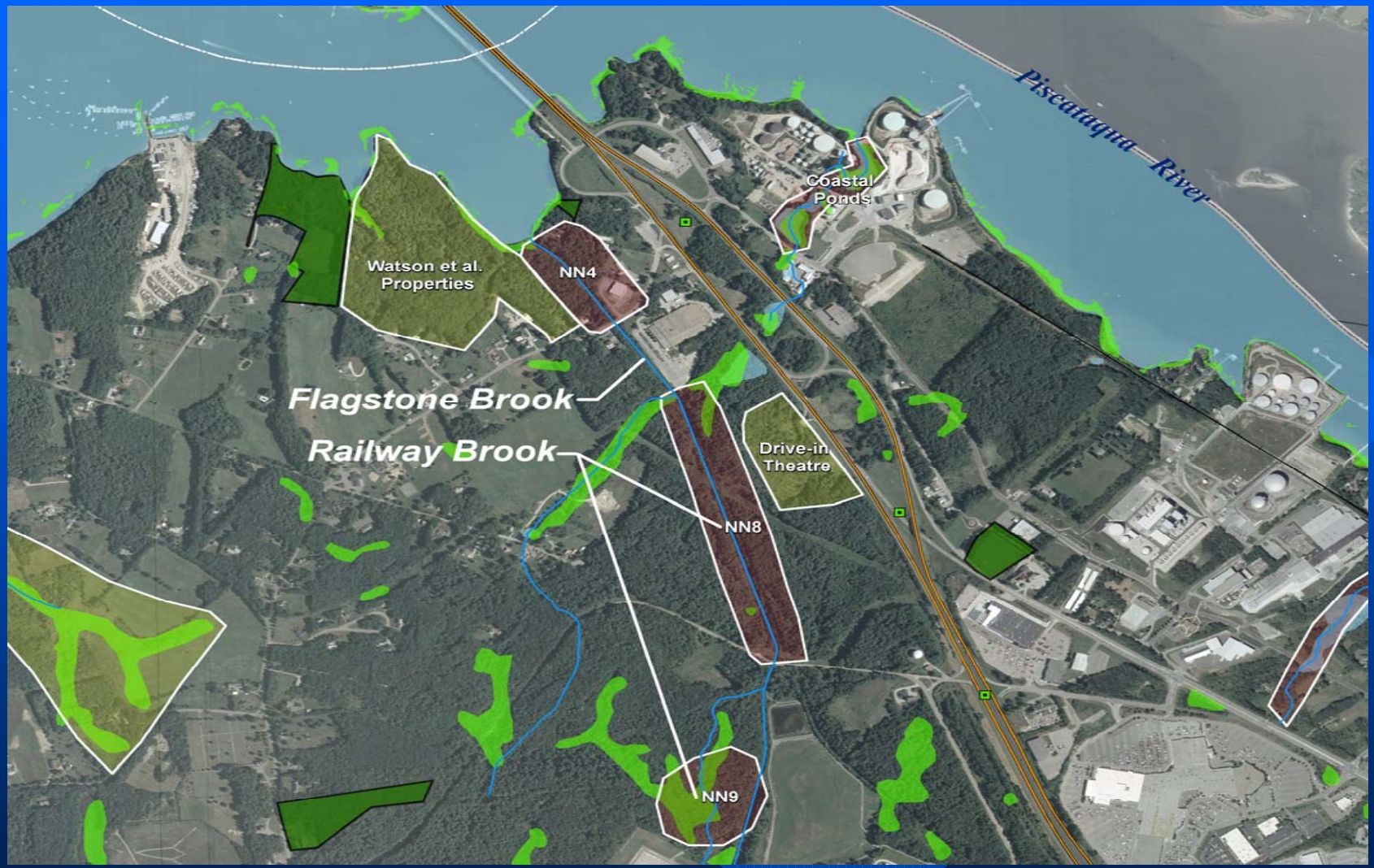


Possible Mitigation – Newington

18 sites reviewed (10 restoration, 8 preservation & limited creation)

- Flagstone/Railway/ Pickering Brook (NN-4/NN-8)
- Drive-in Theatre
- McIntyre Brook (NN-1)
- Knight Brook (NN-3)
- Paul Brook
- Unnamed Perennial Stream
- Hislop Property
- Watson Property et al.
- Thomas Family Tracts
- Fabyan Point South
- Coastal Ponds
- McIntyre Brook (NN-2)
- Railway Brook (NN-9)
- Hodgson Brook
- Stubbs Pond/Peverly Brook
- Circumneutral Swamp (NN-6)

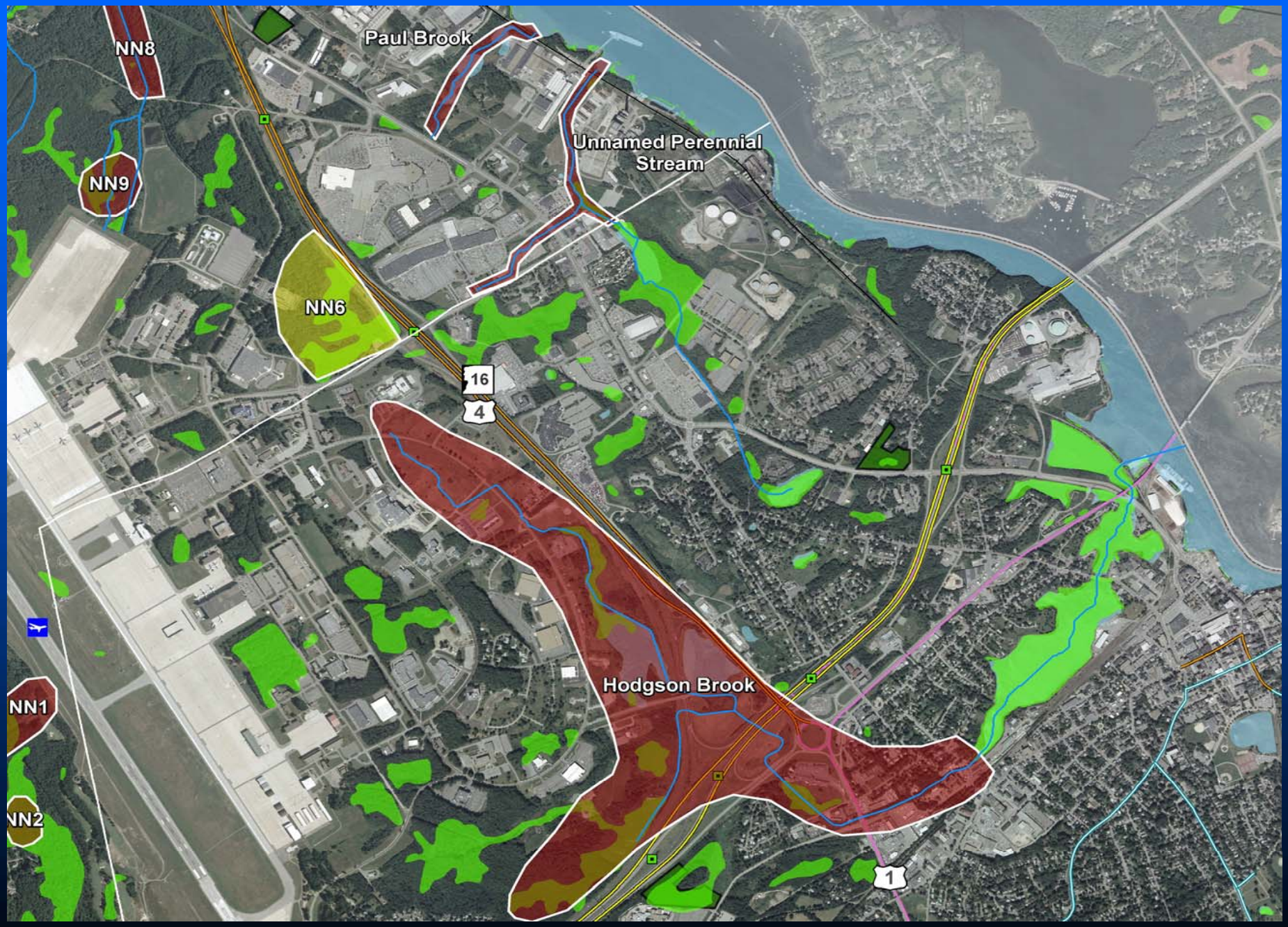
Flagstone/Railway/Pickering Brook (NN-4/NN-8), Drive-in Theatre, Coastal Ponds



- High priority restoration opportunities
- Straightened channel, heavy sediment loads
- Adjacent lands provide important habitat
- Town-supported in principal

Knight Brook (NN-3), Watson et al. Properties

Paul Brook, Unnamed Stream, Circumneutral Swamp (NN-6), Hodgson Brook



McIntyre Brook (NN-1, NN-2), Stubbs Pond, Thomas Family Tracts, Fabyan Point South

Next Steps

- Field walk with Resource Agencies (September 13, 2005)
- Follow-up with communities
- Develop formal proposal in DEIS
- File ACOE Individual Permit
- Final Environmental Impact Statement

- Questions/Comments

- Next Meetings
  - ATF Meeting
    - » September 28, 2005, 6:30 PM, Newington Town Hall

Contact Information

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THANK YOU
FOR
YOUR INTEREST